Java coding guidelines

Prof Bill - last update Jan 2020

Our goal is quality code. This means code that is organized, readable, and easy to understand. These are guidelines, not rules. It's all IMHO. thanks...yow, bill

1. **Think**, then code. So important! Sketch out your plan on the back of a napkin, write some pseudocode, draw UML, etc, **before** you sit down to code.
2. One public class or interface per file This is a Java convention.
3. Write **Javadoc** comments for each class and method. Javadoc is a standard.
4. Make class variables private or protected This is a common object-oriented paradigm. Then, access to class variables is provided by public accessor (set) and mutator (get) methods.
5. Use camel notation for class, method, and variable names. This is a Java convention. Camel notation starts in lowercase and then highlights new words with an uppercase letter. Example: professorPayRaise.
6. Capitalize class, interface and package names. This is a Java convention. Example: MonsterTruck.
7. Use all UPPER CASE for constants, separating words with an underscore. This is a Java convention. For example: DEATH_RAY_VOLTAGE.
8. Use a **consistent style** for spacing, indentation, and curly braces. This makes your code more readable. The default on your IDE is probably fine.
9. Use **inline comments** to explain difficult sections of your code. This makes your work more readable and easier to understand.
10. Always use **curly braces**{...} around your code in if statements, else statements, for loops, and while loops… even if it's only one line of code.

Here are some more complete/official coding guidelines. They're loooong.

- Code Conventions for the Java Programming Language (by Sun Micro, really old), www.oracle.com/technetwork/java/codeconvtoc-136057.html
- Google Java Style Guide, google.github.io/styleguide/javaguide.html